

II. REMARKS

Claims 1, 4, 5, 11-18 and 25-31 are pending and stand rejected under 35 U.S.C. § 112, second paragraph. Applicants acknowledge with appreciation withdrawal of the all the previous rejections under 35 U.S.C. § 103.

Claim 1 has been amended herein to indicate that intracellular signal transforming domain is a PhoQ signaling domain, as described throughout the specification as filed and original claims, for example on page 7, lines 13; page 15, line 24; and original claims 6-10. Entry of the foregoing amendments is respectfully requested.

Applicants reserve the right to file a continuation or divisional application directed to the subject matter of the canceled claims at any time during the pendency of this application.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Independent claim 1 is alleged to vague and indefinite by the use of the phrase derived from "PhoQ." (Final Office Action, page 3). Although Applicants submit that one skilled in the art would readily understand the metes and bounds of this term in view of the teachings of the specification, the claim has been amended herein to obviate this rejection. The amendment is made solely to expedite prosecution and is in no way intended as an acknowledgment that the Examiner's position is correct.

CONCLUSION

Applicants submit that the claims are in condition for allowance and request early notification to that effect. If the Examiner has any further issues or wishes to discuss any of the foregoing, she is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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Version Showing Changes Made to Claims

1. (Twice Amended) A biodetector for the detection of a selected substance, said biodetector comprising:

a signal converting element, comprising (i) an extracellular ligand-specific binding domain which specifically binds said selected substance, wherein said ligand-specific binding domain comprises an epitope-binding fragment of an antibody, and (ii) an intracellular signal transforming domain [derived from] of PhoQ, wherein binding of said substance to said epitope-binding fragment of said ligand-specific binding domain activates said intracellular signal transforming domain providing an activated intracellular signal transforming domain;

a transducer, wherein (i) said transducer has an inactive form and an active form which are distinct from each other, and (ii) said activated intracellular signal transforming domain converts said inactive form of said transducer into said active form of said transducer;

a transcription control element comprising the phoN promoter, wherein expression mediated by said transcription control element is activated by said active form of said transducer; and

a reporter gene operatively linked to said transcription control element, wherein expression of said reporter gene mediated by said transcription control element causes expression of a reporter gene product that provides a detectable signal, wherein said detectable signal is detected optically by bioluminescence detection or fluorescence detection.

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